



High performance. Delivered.

Secrets of Success on the EMR Journey to Meaningful Use: Leading Hospital CIOs Reveal Key Lessons Learned

• Consulting • Technology • Outsourcing

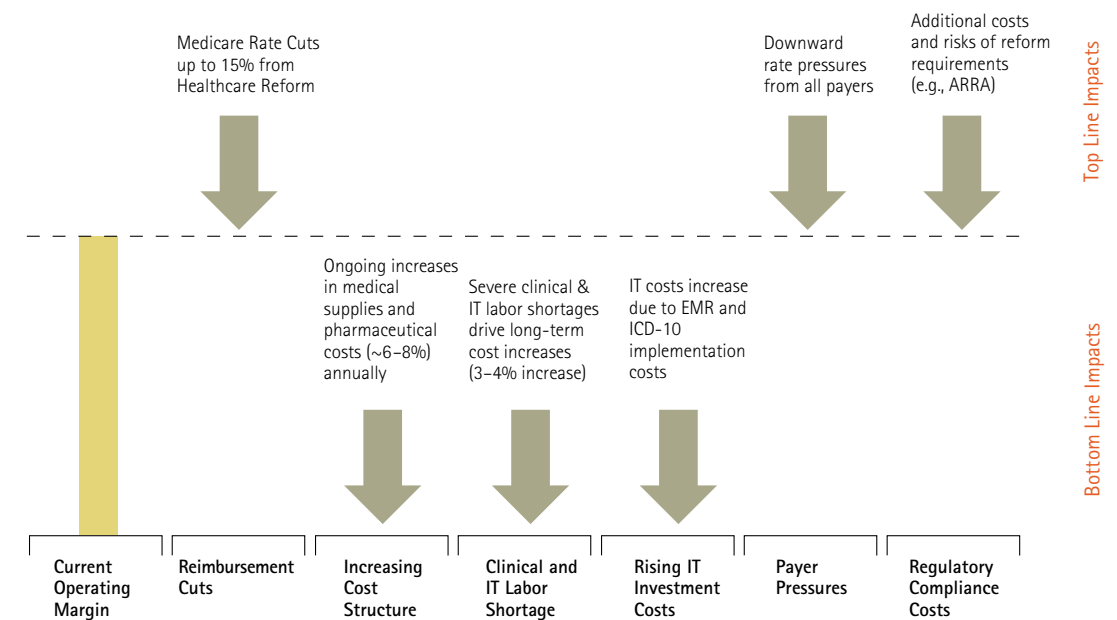
Passage of the HITECH Act (part of the American Reinvestment and Recovery Act, or ARRA) has prompted US hospitals to strive to implement and demonstrate "meaningful use"¹ of electronic medical records (EMR). By Accenture's estimates, nearly 90 percent of hospitals over the next three years will invest to install or upgrade their EMRs in an attempt to meet the government's meaningful use requirements. The stakes are high for hospital leaders and healthcare IT teams as they wade into this complex new environment. For those that navigate successfully, evidence suggests opportunities for great improvements in patient care delivery, outcomes and operating efficiencies. Recognizing hospitals' need for insights and tools, Accenture surveyed 15 CIOs from US health systems that are currently EMR exemplars to glean their best practices for driving a more successful utilization of EMR solutions.

Mounting Pressures on Health Systems

US hospitals are facing meaningful use requirements in a time of unprecedented financial pressures. According to a recent study published by the American Hospital Association (AHA), approximately one-third of all hospitals operated with a loss in 2008.ⁱ Even high-performing hospitals had difficulty navigating the challenging operating environment, given reimbursement rate cuts and a sustained period of high unemployment. As the economy eases toward recovery, hospital executives will continue to confront a series of new obstacles over the next five to ten years. Exhibit 1 highlights the forces bearing down on healthcare providers.

Exhibit 1: Pressures on the Operating Margins of US Hospitals

Impact of Market Forces on Provider Operating Margins



Source: Accenture analysis

¹ Centers for Medicare & Medicaid Services (CMS) defines meaningful use using three main components: "1. The use of a certified EHR in a meaningful manner; 2. The use of certified EHR technology for electronic exchange of health information to improve quality of health care (including e-prescribing in outpatient settings); and 3. The use of certified EHR technology to submit clinical quality and other measures." For a full definition, please see: <https://www.cms.gov/EHRIncentivePrograms/>

Exhibit 2: HIMSS Stages of EMR Maturity vs. All US Hospital Levels of Achievement

Stage	Cumulative Capabilities	Percent of Hospitals at Each Stage	
		2008	2009
Stage 7	Complete EMR; CCD transactions to share data; data warehousing; data continuity with ED, ambulatory, OP	0.3%	0.7%
Stage 6	Physician documentation (structured templates), full CDSS (variance & compliance), full R-PACS	0.5%	1.6%
Stage 5	Closed-loop medication administration	2.5%	3.8%
Stage 4	CPOE, clinical decision support (clinical protocols)	2.5%	7.4%
Stage 3	Nursing/clinical documentation (flow sheets), CDSS (error checking); PACS available outside Radiology	35.7%	50.9%
Stage 2	CDR, controlled medical vocabulary, CDS, may have document imaging; HIE capable	31.4%	16.9%
Stage 1	Ancillaries - lab, rad, pharmacy - all installed	11.5%	7.2%
Stage 0	All three ancillaries not installed	15.6%	11.5%

Mature EMR



No EMR

Meaningful Use Threshold

Source: HIMSS



In the short term, mandates stemming from healthcare reform will present varying complications for hospitals. Some hospitals may benefit from these mandates, since reform will provide improved healthcare coverage to approximately 25 million Americans by 2015, and 32 million by 2019.ⁱⁱ Other hospitals may suffer from reduced public spending or shifting patient mixes that adversely impact their reimbursement rates. Over the longer term, however, reform (as currently proposed) will almost assuredly hurt margins at all hospitals, owing to Medicare and Medicaid rate cuts of up to 11 percent per patient.ⁱⁱⁱ

Meanwhile, hospitals have come under increasing cost pressures due to the shortage of qualified nurses, primary care physicians and clinically trained support staff. Labor costs typically account for 40 to 50 percent of hospital operating expenses.^{iv} These costs will continue to increase as the industry struggles to hire, train and retain skilled resources. The total healthcare labor gap may reach up to one million nurses, physicians and healthcare IT resources by 2020,^v representing a shortage of almost 175 full-time equivalents (FTEs) per hospital.^{vi}

Even as all these pressures intensify, hospitals are being asked to make significant investments in their healthcare IT infrastructures. Regulations set forth by the World Health Organization (WHO) are prompting a shift to ICD-10 coding,² which is expected to cost the industry \$700 million to \$2.7 billion^{vii} through 2013 in one-time implementations and upgrades. Additionally, ARRA stipulations, including financial incentives and penalties, accelerate the pace at which hospitals shift away from paper-based medical records. The resulting massive transition to EMRs may translate into annual industry-wide expenditures of up to \$13 billion per year^{viii} in software, hardware, labor and support services.

Requirements to upgrade technological infrastructure and to comply with new mandates pose further top-line risks for hospitals. To be sure, the HITECH Act provides incentive payments to encourage hospitals to adopt new technology. However, it also contains penalties that will be imposed on hospitals that fail to meet strict implementation timelines. The severity of these penalties varies based on a hospital's size and patient mix. Still, Accenture estimates that an average 500-bed facility would face annual reductions in Medicare reimbursement rates equivalent to a \$3 million to \$6 million fee annually for failing to meet meaningful use requirements by 2015. These fees weigh on the minds of hospital executives. As Exhibit 2 highlights, more than 85 percent of hospitals are outside of the compliance range for meaningful use today. By Accenture's estimates, roughly half of US hospitals are at risk of incurring penalties starting in 2015.

Accenture's EMR Study

To help prepare our clients better for the EMR journey ahead, Accenture conducted interviews with the CIOs of 15 leading US health systems, which range in revenue from \$1 billion to \$15 billion. Each system was advanced in its EMR maturity, having achieved at least Healthcare Information and Management Systems Society (HIMSS) Stage 4, and nearly all expected to achieve meaningful use before penalties begin in 2015. Study participants represented diverse geographies in terms of their hospital footprints – Northeast (3), Midwest (5), West (2) and South (5). One-third of our participants represented academic medical centers. As Exhibit 3 highlights, the EMR vendors used by this group are also diverse; however, over half of the hospitals included in the participating systems were using Epic or Cerner. Eclipsys, GE and McKesson each accounted for about

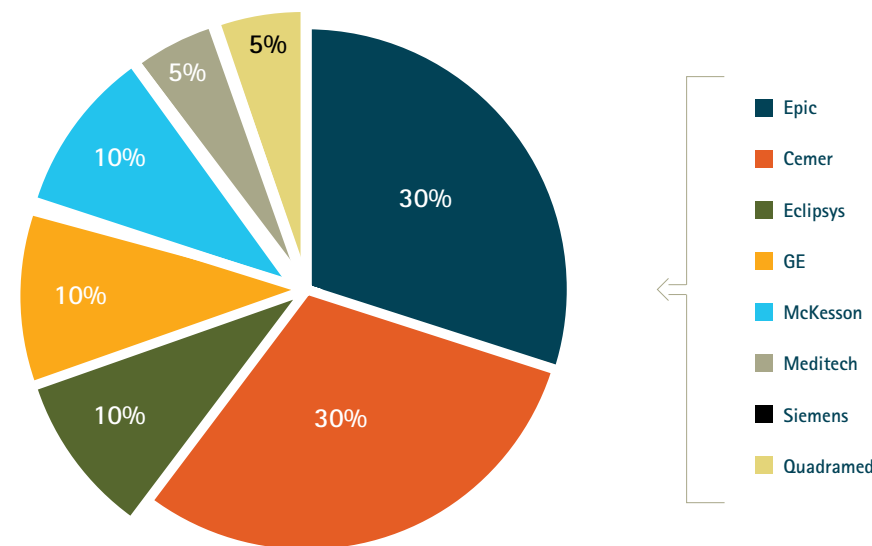
10 percent of the total installed hospitals in the health systems we studied. Meditech and Quadramed healthcare solutions were also installed in a small segment of our total hospital population. [Note: We are not recommending or supporting the implementation or use of one specific EMR technology or vendor.]

² ICD-10 is a coding of diseases and signs, symptoms, abnormal findings, complaints, social circumstances and external causes of injury or diseases, as classified by WHO. The code set allows more than 14,400 different codes and permits the tracking of many new diagnoses.

Through our interviews as well as quantitative benchmarking, we identified six key insights that can help health systems successfully navigate the EMR journey:

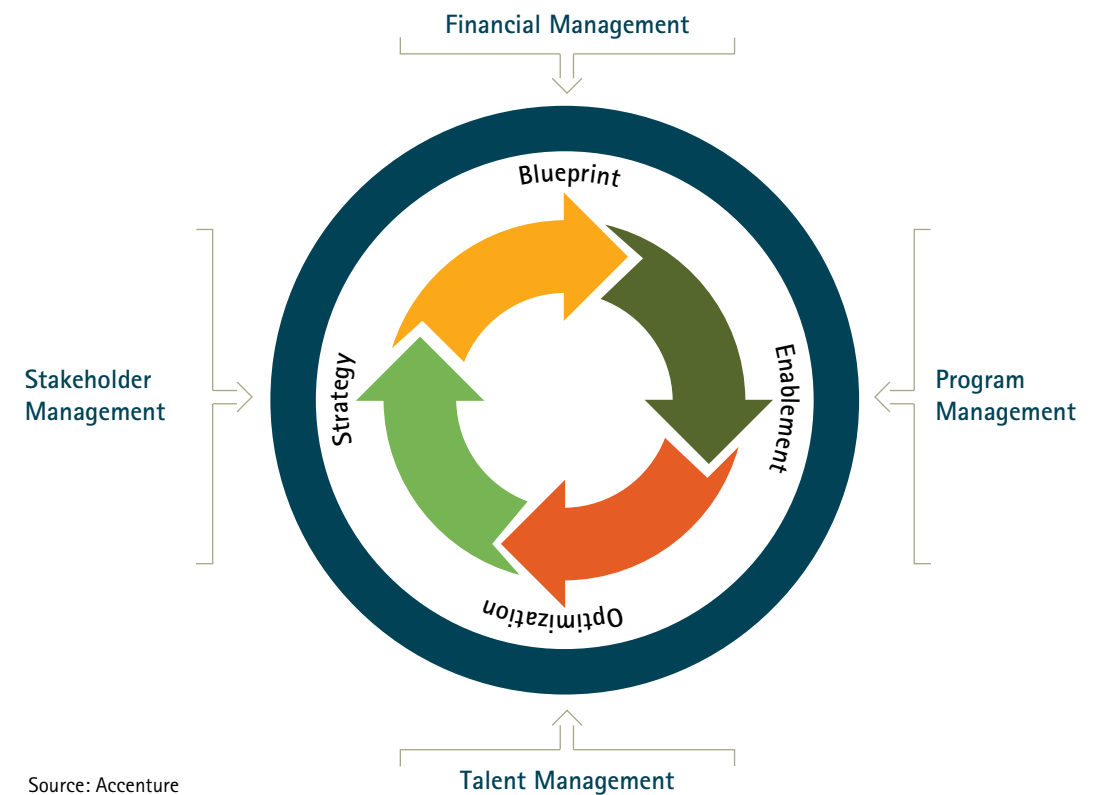
- 1. EMR planning and implementation must be a strategic initiative, not an IT initiative** – Having the passion, influence, engagement and attention of a hospital system's leadership from the outset was consistently cited by our study participants as a success driver.
- 2. It takes longer and costs more than most anticipate** – Most of the health systems in our benchmarking study underestimated (by nearly 100 percent) the time and costs associated with implementing advanced EMR functions, including clinical order entry, nursing and physician documentation, clinical decision support and bar-coding medication.
- 3. IT operating costs will spike, and managing them requires leadership alignment and patience** – Benchmarking shows that hospitals experience an 80 percent increase in their IT operating expenses while transitioning to EMR. This translated to IT operating expenses accounting for a larger percentage, nearly 200 basis points more, of the hospital's overall operating budget. Evidence also suggests that these expense inflections are sustained over the long term.
- 4. The war for health IT talent is on** – There is a significant shortage of qualified health IT professionals to meet the demand associated with EMR implementation and support. Nearly every CIO we interviewed noted unfilled positions and expressed concern about how their health system would source enough talent from the marketplace, including from EMR vendors to meet longer-term demands.
- 5. Supporting EMR means thinking differently about capability and operating model needs** – Hospital CIOs noted the need to think differently about capabilities required to support frontline EMR users as well as to drive optimization of EMR-derived data through health analytics. In terms of support (training, service and troubleshooting), the average hospital had to increase the number of FTEs focused on healthcare IT support by 45 percent as it reached mature levels of functionality and adoption.
- 6. Creating a culture for adoption is essential** – To achieve meaningful use, 75 percent of the clinicians in a hospital must, among other things, demonstrate consistent use of advanced EMR components, which include computerized physician order entry (CPOE), physician documentation and closed-loop administration. Every CIO we spoke with talked about the need for a sharp focus on change management and workforce engagement to ensure that key stakeholders, particularly physicians, get behind the effort and understand the benefits of using these components.

Exhibit 3: EMR Vendors Represented by Study Participants



These insights point to the need for adroit management of not only financial resources but also programs, talent and stakeholders during each stage of the EMR transition—whether it's formulating an implementation strategy, establishing a blueprint for change, enabling employees and teams to adopt new ways of doing things or embedding EMR use throughout the entire organization (Exhibit 4). Let's now take a closer look at each of the six insights for successful EMR adoption and use.

Exhibit 4: Capabilities Needed at Each Stage of the EMR Journey



Source: Accenture

Make EMR planning and implementation strategic initiatives, not IT initiatives

Virtually all of the CIOs we interviewed noted that the key to scoring early wins with EMR implementation was securing the passion and commitment of the CEO and the support of the hospital leadership team before embarking on the journey. Senior leaders must view and frame EMR as a driver of quality care delivery or, as one CIO put it, a chance to deliver high-quality care as a “system” to the communities that their organization serves. One leading hospital noted the passion behind leveraging its EMR to test if consistent use of new clinical practices and standards improved outcomes and reduced medical errors with a population of lung cancer patients. Each participating hospital in our study noted that EMR implementation was a strategic imperative for their health system. Framing the implementation in this way helped leaders appropriate sufficient resources for the program and make critical decisions on capital investments and trade-offs.

Our interviewees proposed three keys to success for the EMR strategic planning process: engagement strategy, vision and enterprise EMR strategy.

Engagement Strategy

CIOs stressed the importance of engaging not only hospital administrative leaders at the outset of the EMR journey but also physician leaders. Many acknowledged that rework (for example, of order sets and clinical work flows) was required later in their health system’s EMR implementation because of limited engagement early on. Turnover of key stakeholders and lack of inclusion of physician stakeholders, including community physicians, worsened the problem.

Our interviewees recommended developing an EMR business case early for each major system stakeholder, clarifying the clinical and financial benefits for all. One CIO noted, “We were late in engaging all of the physician stakeholders in the ‘collective’ opportunity; it was not wise to do it piecemeal.”

Our study participants also suggested that hospitals create a dedicated position—the Chief Medical Informatics Officer (CMIO)—to serve as a bridge between the healthcare IT organization and the hospital’s clinical and business operations. The structure of this role can vary. However, in our observations, CMIOs report directly to the CIO or to the Chief Medical Officer (CMO). In either case, it is an important partnership for the CIO. A CMIO must possess a blend of deep clinical, technology and business management skills. He or she should also be backed by physician engagement teams—groups of clinically trained personnel who can “fight fires” and educate the clinical community about EMR and its usage. During the EMR implementation, the CMIO plays a central role in building collaboration across the organization and ensuring buy-in from physicians.

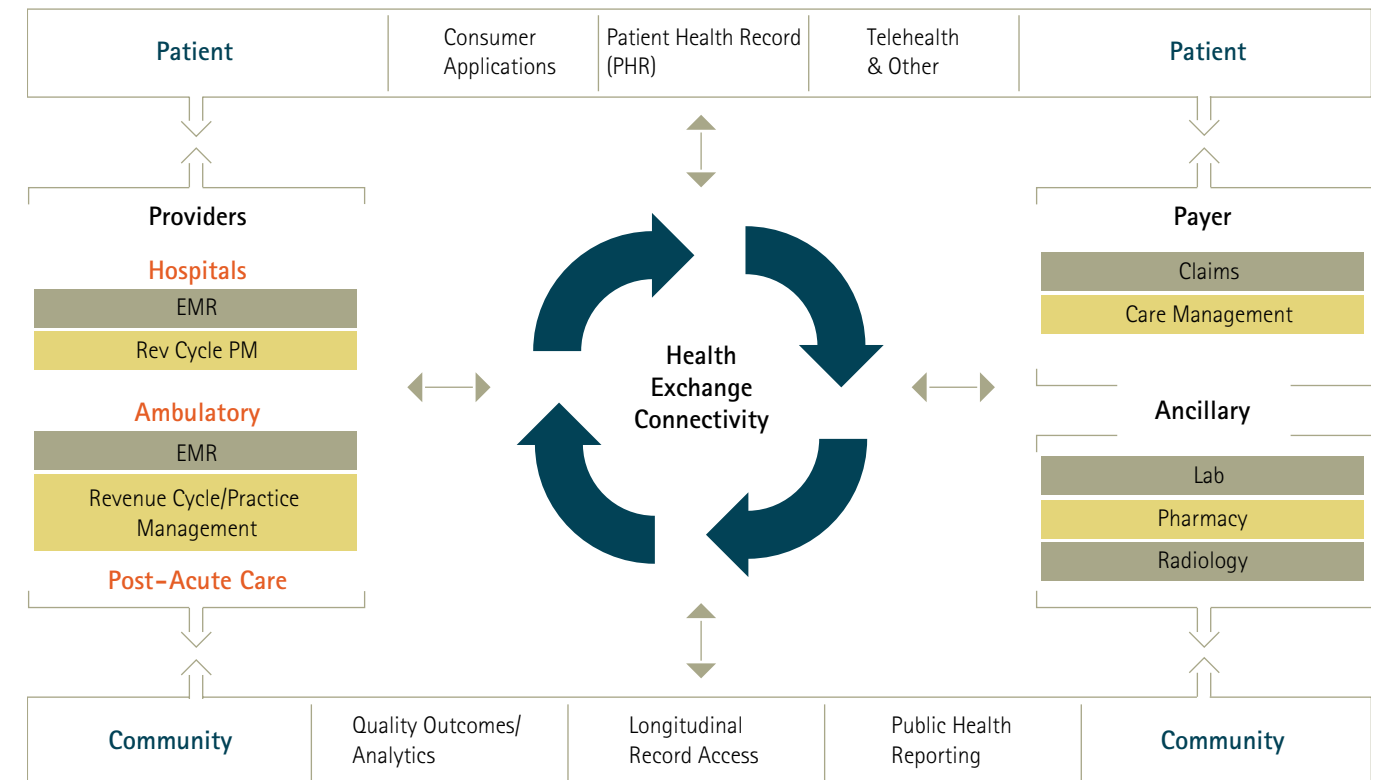
Vision

A subset of the CIOs we spoke with articulated a vision for EMR implementation early in their health system’s journey. But rather than framing EMR as a technology solution, they identified the clinical information and the associated health analytics that the implementation would generate to enable better care delivery and outcomes. They thus defined EMR as the vehicle for achieving a goal that everyone in their health system cared deeply about.

The desire of chief executives to improve outcomes through health analytics set these organizations on an accelerated path to EMR planning and implementation. One of our interviewees, in a system recognized nationally for its success in driving health analytics, said that the organization’s EMR journey (which began almost 30 years ago) was about capturing data in a way that enabled thoughtful analysis and decisions. Another noted that the CEO publicly put forth a vision for transforming the health outcomes of the metropolitan area that the organization served—and then identified EMR as the tool for realizing that vision. This health system has stated that its central mission is to improve the health of all citizens in a substantial part of a very large metropolitan city. It is investing hundreds of millions of dollars to establish a connected health community with neighboring ambulatory physician groups. It is also offering significant financial incentives to encourage these affiliated physicians to adopt EMR technology solutions, which is critical to enabling this connected network.

Indeed, the most frequently cited strategic objective by hospital CIOs participating in our interviews was ensuring high-quality patient care and health outcomes. Yet these hospitals also recognized the importance of realizing the financial incentives for adopting EMR put forth by ARRA. Nearly all of the CIOs noted that their organizations had incorporated incentive payments into their strategic and budgetary plans.

Exhibit 5: The Healthcare Ecosystem



Source: Accenture

Enterprise EMR Strategy

Many CIOs we interviewed said that they missed the opportunity to think, at the outset, about their enterprise’s EMR journey, which included inpatient, outpatient and ancillary services. Today, more than 85 percent of the health systems we studied are proactively engaging ambulatory physicians as part of their current EMR strategy, three with significant financial incentives. But they noted that doing this after the initial planning stage made it more difficult to engage that group.

In addition, many of our participants were subsidizing the costs of EMR implementation for their affiliated physicians. This subsidization ranged from 50 to 100 percent, depending on the health system and on the independent physicians’ willingness to adopt a preferred EMR solution. All of the CIOs we spoke with noted that, regardless of the degree of support, getting these independent physicians on board was more challenging than they anticipated, and that they fell far behind their target acceptance rates.

Finally, most of the executives we interviewed also had health information exchange (HIE)³ on their radar screen but noted that it was still “early days” in terms of planning and commitment to HIE. Several pointed out that HIE was getting more of their attention, owing to overtures from vendors. However, they wished they had spent more time earlier in the planning phases thinking about goals for connectivity with others in their healthcare ecosystem, outside the walls of their own hospital. Many felt that because of this lack of early planning, they were now in a position of having to play catch up.

³ Health information exchange is the mobilization of healthcare information electronically across organizations within a region, community or hospital system.

Count on needing more time and money than you initially expected

Most of our survey respondents vastly underestimated (by nearly 100 percent) the time and costs associated with implementing advanced EMR functions, including clinical order entry, nursing and physician documentation, clinical decision support and bar-coding medication.

Many health systems have difficulty taking into account the increasing cost of securing and employing healthcare IT FTEs with clinical skills and the time required to implement advanced EMR functions fully.

For example, the average time needed to reach HIMSS Stage 6 (physician documentation) was seven years,^{ix} roughly double early expectations. However, with the availability of more mature and certified EMRs on the market, we expect EMR adoption at HIMSS Stage 6 will be reduced and perhaps achieved during the initial go-live of such a system.

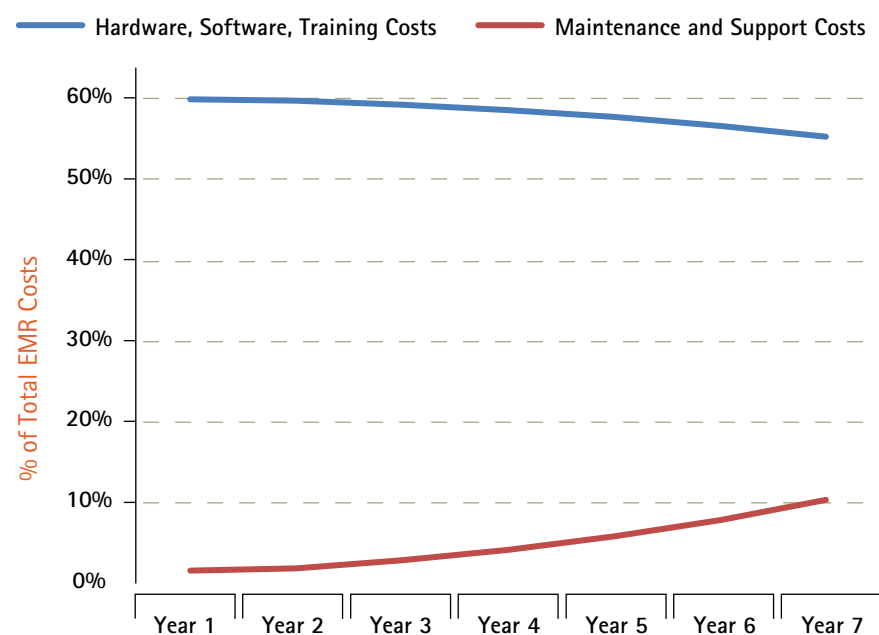
Our research suggests that the average EMR implementation for a 500-bed hospital might take roughly five to seven years, may cost approximately \$50 million and could result in \$5 million to \$6 million in government incentive payments if successful.^x

Over time, the lion's share of EMR investment is dedicated to hardware, software and training, which together constitute roughly 60 percent of total EMR implementation costs. However, these costs shrink over time, and the amount spent on support and maintenance labor increases by about four times over the average implementation time frame. Costs go from roughly three percent of total spend to 12 percent of total spend (Exhibit 6).

The hospitals we surveyed reported using or considering the following practices to overcome cost- and time-management challenges:

- Establish goals and plans for total cost of ownership targets throughout the EMR journey.
- Track performance against the stated business case and ensure and clarify who is accountable for realizing each of the benefits to that case.
- Design tailored processes and clinical workflows to incorporate EMR solutions at the start of the journey, instead of waiting until after solutions are already in place.
- Use real-time feedback loops from pilot studies to guide management throughout the implementation.

Exhibit 6: Breakdown of Total EMR Market Spending



Source: Accenture Analysis

Expect your IT operating costs to spike, and manage IT operating expenses through leadership alignment and patience

The increasing level of complexity of EMR solutions and the challenges that accompany an advanced EMR implementation often result in a spike in IT operating expenses as a percentage of total operating expenses (Exhibit 7). Data from our benchmarking study illustrates that on average, a hospital's healthcare IT operating expenses as a percentage of total operating expenses increased by roughly 80 percent during an advanced EMR implementation. Moreover, our analysis highlighted that the increase in operating expenses, as the hospital reaches EMR maturity, is sustained. While actual expenditures may vary across health systems, the increase in IT operating expenses was a common theme with our survey participants.

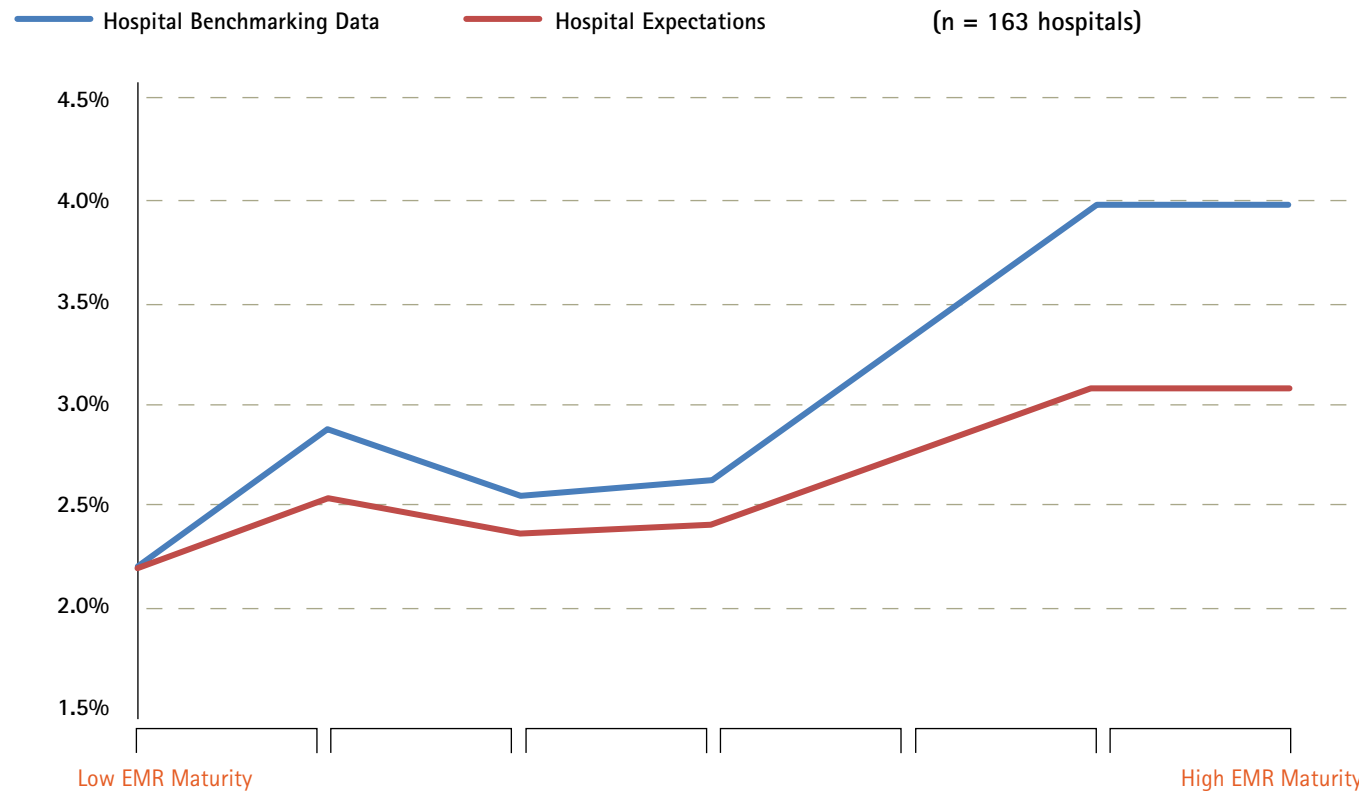
In addition, analysis of available data for HIMSS Stage 6 and 7 hospitals shows that over time, IT budgets as a percentage of revenue rose approximately 200 basis points as hospitals reached more sophisticated stages of EMR use.

This increase is driven by a number of forces, including the need to create interfaces with other hospital systems, to design and manage middleware, to support incremental servers and to shift the level of data-center support from higher tiers (many of our study participants noted the need for Tier

3), possibly in an application service provider or cloud environment. Costs can also spike owing to an expansion in the number of staff members using the EMR software, a rise in the number of FTEs required to support more sophisticated EMR systems and the steady costs of software licenses and upgrades. Interestingly, after system implementation, additional functionality (e.g., clinical decision support analytics) is sought, so the spend continues to increase to meet greater value demand. As EMR systems continue to pervade hospitals and replace or connect with additional clinical and administrative functions, we estimate that the percentage of hospital staff using an EMR could increase from 40–50 percent to as much as 80–90 percent. In one leading hospital, approximately 75 percent of these FTEs were internally managed in the short term. In the long term, the figure increased to approximately 95 percent at this hospital.

Managing through this inflection in healthcare IT operating costs requires confidence, alignment and patience. This is particularly true given the historical role and image of IT organizations in the average US hospital. IT spending historically accounted for less than three percent of total hospital revenue, and the allotted IT budget typically represented less than four percent of the overall hospital budget (Exhibit 8). These percentages are much smaller than in other US industries.

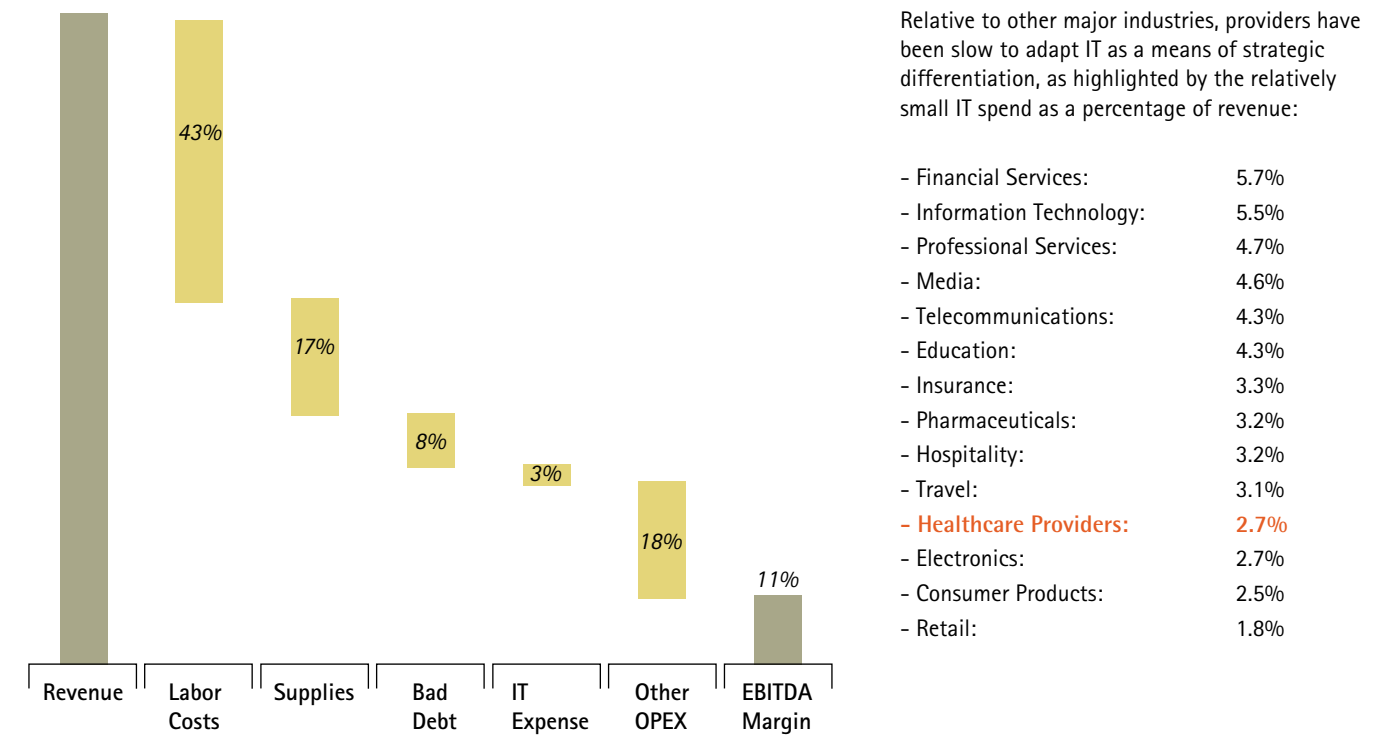
Exhibit 7: Hospital IT Operating Expenses as Percent of Total Operating Expenses



Source: Accenture's 2010 EMR Survey & Benchmarking Survey

Exhibit 8: US Provider IT Investment Relative to Other US Industries

Sample US Provider Cost Waterfall Analysis



Source: THC Financials, Caris & Company Analysis, Accenture Survey Information; Gartner IT Key Metrics Data 2010

To manage through the operating costs increases, many of our interviewees recommended standardizing order sets.⁴ Our research shows wide variation in the number of order sets across the study participants—from just 100 to upwards of 2,500. Many participants conducted analyses revealing that numerous order sets were simply not being used in their health system. They were able to rationalize at least 50 percent of them; for example, by omitting those that were not being consistently utilized across the system. This dramatically reduced the complexity of managing, supporting and utilizing their EMR solution. One leading hospital noted going from several thousand to a few hundred order sets and cites that 60–65 percent of its orders are

now placed through this simplified, standard set—a noted key to success. Standardizing order sets not only strengthens a health system's ability to analyze data, it also makes it easier for the system to use the clinical decision support system (CDSS) and to predict maintenance costs.

Win the war for health IT talent

There is a significant shortage of qualified health IT professionals to support EMR implementation demand in the next three to five years. Nearly every CIO we interviewed noted unfilled positions and expressed concerns about how to source enough talent from the marketplace (and even from their EMR vendors) and how to prevent attrition. Accenture's research shows that reaching EMR maturity requires 0.2 healthcare IT FTEs per hospital bed. That translates into a requisite supply of approximately 155,000 FTEs in the US. Gartner estimates that there are about 110,000 skilled IT FTEs in today's workforce, creating a deficit of nearly 50,000. The Office of the National Coordinator for Health Information Technology also estimates that an

additional 51,000 healthcare IT workers will be needed over the next five years to meet these challenges. Hospitals, EMR vendors and systems integrators are all competing with one another for these scarce workers.

"The skills shortage is real," said the CIO of a \$3 billion health system that participated in our study. "At any given time, I have 50 unfilled IT roles. Like my peers, I need to be focused on finding the right skills (first) and at the right price (second)." Another interviewee noted, "We could have 25 percent more people in our IT department, but that would still not be enough to properly support our EMR system."

Another challenge facing hospitals is how to keep their current IT staff up to date on training. As eHealth solutions become more sophisticated, hospitals must identify ways to ensure that their current IT employees have the skills needed to manage and use these solutions.

But healthcare IT workers are not the only talent that hospitals need to be concerned about. Clinicians constitute another crucial category of talent. And many hospitals view implementing an EMR system as a way to retain and attract their clinical workforce. Employee dissatisfaction and turnover are widespread problems for hospitals and can significantly increase annual operating expenses. For example, the average turnover rate for nurses across the US is 13.9 percent per year. It is not uncommon for hospitals to pay signing and retention bonuses as large as \$25,000 to secure qualified nurses. Add to that the costs of internal recruiting and training for new hires, and turnover becomes alarmingly expensive.

Most clinicians leave because of understaffing and the assignment of administrative responsibilities to them by hospitals seeking to provide more service using fewer resources. While there is no simple solution for solving clinician staffing shortages in the short term, EMR may improve engagement among these and other employees by increasing work flow efficiency. Take a large Midwestern health system as an example. The organization incorporated clinical treatment protocols into its EMR system, expediting the ordering of radiological tests, chemotherapy and medications.^{xi} These changes reduced strain on clinical staff—which in turn improved provider satisfaction (as measured through formal surveys).

⁴ An order set is a standardized list of orders for a specific diagnosis. These orders have been developed by a team of physicians who consult medical literature for evidence-based standards.

To address the intensifying war for healthcare talent, our survey participants recommended the following practices:

- Focus on being an “employer of choice” for the brightest IT professionals who are evaluating potential health systems as well as jobs in other industries.
- Create talent development programs specifically for healthcare IT specialists.
- Take advantage of third-party sourcing pools for IT workers, either onshore or offshore.
- Establish in-house education departments to provide the latest training for IT staff.
- Forge partnerships with local colleges; for example, by setting up internship programs for IT work.
- Consider creating a separate organization to house specialized healthcare IT talent. Within this organization, offer a more attractive benefits package and a different career model; for instance, opportunities to progress rapidly in the job and to earn more competitive salaries than what would typically be provided through health systems’ traditional modest pay increases. You may be able to source those skills to different hospitals in your health system during your organization’s EMR journey.
- Establish a vendor-sponsored “boot camp”—a local training camp to retool IT professionals in the area. You can draw on the resulting talent pool to support your health system’s needs.

Think differently about your capability needs for tomorrow’s information-powered environment

Hospital CIOs in our study noted the need to think differently about the capabilities required to support frontline EMR users and to optimize EMR-derived data through analytics. In terms of support (training, service and troubleshooting), the number of FTEs hired by the average hospital increased by 45 percent as it reached mature levels of EMR functionality and adoption. In addition, our data showed that mature EMR users rely on more clinically trained resources, such as registered nurses and pharmacists, for EMR support and optimization. On average, approximately 30 percent of the mature EMR IT organizations in our study consisted of clinically trained resources—dramatic increases from their early stages (Exhibit 9).

In addition, our interviewees noted that they expected to encounter challenges in supporting huge volumes of electronic data (whether for electronic medical records or electronic health records, EHRs), securing data integrity and supporting health analytics needs. One CIO noted concerns he and his peers had with analyzing and managing huge amounts of data. Most CIOs noted the importance of the CMIO in surmounting these challenges. But they also lamented that deep data warehousing, statistical and informatics skills do not reside in the average US hospital. Indeed, HIMSS estimates that only 25 percent of US hospitals have any data warehouse or mining capabilities. One leading practice that Accenture has helped implement for clients is the VIP Helpdesk for physicians. (See sidebar “Spotlight on Accenture’s Service Desk”).

“Training is key, retention is key,” said one CIO of a large academic medical center. “Candidates come not only from existing IT staff, but also from physicians, nurses and technicians always looking for aptitude. This is a good time to identify people who are looking for career change or development,” added this CIO.

Spotlight on Accenture’s Service Desk

Accenture is working with a large academic health system on a connected health technology initiative to improve patient care while maximizing operational efficiency and effectiveness. Earlier this year, the organization received the highest level designation (Stage 7) for its EMR from HIMSS Analytics, the industry organization focused on the use of information technology in healthcare.

Accenture’s Service Desk is a single point of contact for all application and infrastructure and support needs. The solution lets users call the same number they use today; however, the calls are rerouted to Tier 1 specialists based upon routing criteria and user demographic information. The solution also includes other multiple contact channels, including email, chat and voicemail, to reach the service desk, as well as providing the self-service portal.

Create a culture for EMR adoption

To fully achieve meaningful use, the majority of the clinicians in a hospital must consistently use the EMR system in their day-to-day activities, including advanced components such as CPOE, clinical decision support, physician documentation, nursing documentation and closed-loop medication administration.

Our surveyed executives suggested additional practices for creating a culture for EMR adoption

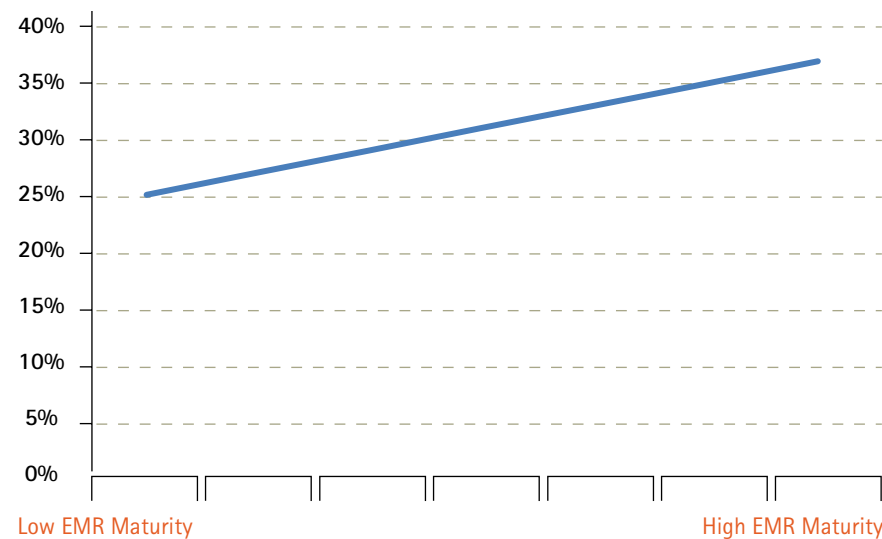


Every CIO we interviewed advised investing as much as possible in change management and engagement to ensure that key stakeholders, particularly physicians, are aligned behind the EMR effort and that they see the benefits of using the advanced tools. Our interviewees also strongly recommended engaging physicians in EMR/IT governance decisions early on. One executive used an outside firm to conduct a full EMR readiness assessment. As part of the assessment, the firm gauged how a transition to an EMR solution would impact the health system's work flows and processes and identified where the organization might encounter some resistance to changes in ways of doing work. The assessment helped executives determine how best to manage those impacts effectively within the clinical community.

Most of the CIOs we interviewed were actively involved in EMR-related engagement and change management activities as well as in the recruitment of affiliated physicians as part of the hospital's EMR ambulatory strategy.

One noted spending at least an evening every week with cohorts of physicians, educating them on the benefits of the tools.

Exhibit 9: Percentage of Clinicians in IT Organizations of Leading Hospitals



Source: Accenture 2010 Benchmarking Survey

- **Develop a readiness and preparation plan.** If needed, hire an independent firm to evaluate the readiness of your clinical environment for the changes to processes and work flows that accompany transition to an EMR system. This evaluation may help you prepare your organization for the change as well as build goodwill during the EMR design, build and optimization stages.
- **Provide physician-centric support.** CIOs we interviewed noted the importance of identifying and using multiple channels of engagement with the physician community. As noted earlier, dedicated physician engagement teams supporting your CMIO can help you articulate and address physicians' needs as they move up the adoption curve.

- **Maintain momentum through the EMR optimization stage.** Implementing an EMR system isn't the end of your journey. The resulting data must also be optimized; that is, the organization needs to realize a return on its EMR investment and show that employees and other stakeholders are using EMR technology in a way that improves their productivity and strengthens the bottom line. However, in many health systems, stakeholders view implementation as the destination. They celebrate completion of this phase and then turn their attention to other challenges. As a result, optimization suffers. You need to take action to maintain enthusiasm and momentum through the implementation and into the optimization stage.

Most of our survey participants were far along in their EMR journey, and many had sustained momentum by defining an "EMR optimization" phase and communicating it to their organizations. To win buy-in for optimization, stress the importance of meeting key goals such as driving physician adoption to the target 90 percent mark, achieving meaningful use and realizing the tangible and intangible benefits of EMR. Remind stakeholders that optimizing their EMR will help them make better use of health analytics and position them to realize their vision for connected and quality service throughout their health ecosystem.

Next steps

Between regulatory changes and mounting pressures on health systems to lower costs, improve efficiency and enhance quality of patient care, the implementation and adoption of EMRs is a transformational milestone for US hospitals and the health industry overall. Hospitals that can demonstrate that they are making meaningful use of EMRs in the coming years will position themselves to capture valuable incentives as well as avoid worrisome penalties. Even more importantly, they will equip key stakeholder groups—clinicians, administrative

staff, healthcare IT professionals—with the tools and processes needed to provide the highest-quality patient care and safety.

While taking the best possible care of patients is a mission that all healthcare stakeholders hold dear, adopting and using an EMR system requires that people change numerous aspects of how they carry out their work. And that can spark confusion and resistance. Moreover, setting up an EMR system and optimizing the data it generates is time-consuming and expensive.

To surmount the challenges that come with the EMR journey, healthcare executives can learn a lot from peers who have begun the journey and captured lessons along the way. This report has presented key insights and recommendations from CIOs of leading health systems that have made major strides in EMR. By considering these insights and recommendations, health systems seeking to navigate the complex EMR journey can vastly sweeten the odds of succeeding.

ⁱ American Hospital Association; Chartbook 2009 (<http://www.aha.org/aha/research-and-trends/chartbook/ch4.html>).

ⁱⁱ Based on projections through 2019. Source: Leerink Swann estimates and Congressional Budget Office, "Industry Update – Hospitals: Estimating the Impact of Healthcare Reform," March 23, 2010.

ⁱⁱⁱ Refers to the total savings in 2019 combining DSH payment rate cuts and productivity adjustments to the market basket for Medicare. Source: Leerink Swann estimates and Congressional Budget Office, "Industry Update – Hospitals: Estimating the Impact of Healthcare Reform," March 23, 2010.

^{iv} Based on analysis of publicly traded companies as well as select data provided to Accenture by private hospitals.

^v "What works: Healing the healthcare staffing shortage," PWC (<http://www.pwc.com/us/en/healthcare/publications/what-works-healing-the-healthcare-staffing-shortage.jhtml>).

^{vi} Based on total number of hospitals in the US (5,815) divided by labor shortage of 1 million FTEs. Source: AHA Fast Facts (<http://www.aha.org/aha/resource-center/Statistics-and-Studies/fast-facts.html>).

^{vii} "Examining the Cost of Implementing ICD-10," Hay Group, October 12, 2006.

^{viii} Accenture analysis based on total labor spend (internal and external support), software, hardware, training and associated vendor services (such as assistance with change management and process optimization).

^{ix} Accenture analysis (<http://www.himssanalytics.org/docs/stage6whitepaper.pdf>).

^x Accenture analysis.

^{xi} Nicholas E. Davies Symposium Proceedings, Ohio State (2001), as cited in "EHR and the Return on Investment through HIMSS Analytics" (<http://www.himss.org/content/files/ehr-roi.pdf>).

Copyright © 2011 Accenture
All rights reserved.

Accenture, its logo, and
High Performance Delivered
are trademarks of Accenture.

About Accenture

Accenture is a global management consulting, technology services and outsourcing company, with approximately 211,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US\$21.6 billion for the fiscal year ended Aug. 31, 2010. Its home page is www.accenture.com.

About the Authors

Mark Knickrehm is the Global Managing Director of Accenture's Health practice.

Kristin Ficery is a Senior Executive in Accenture's Health Management Consulting practice.